

## Prototype Gene Targeting Strategy

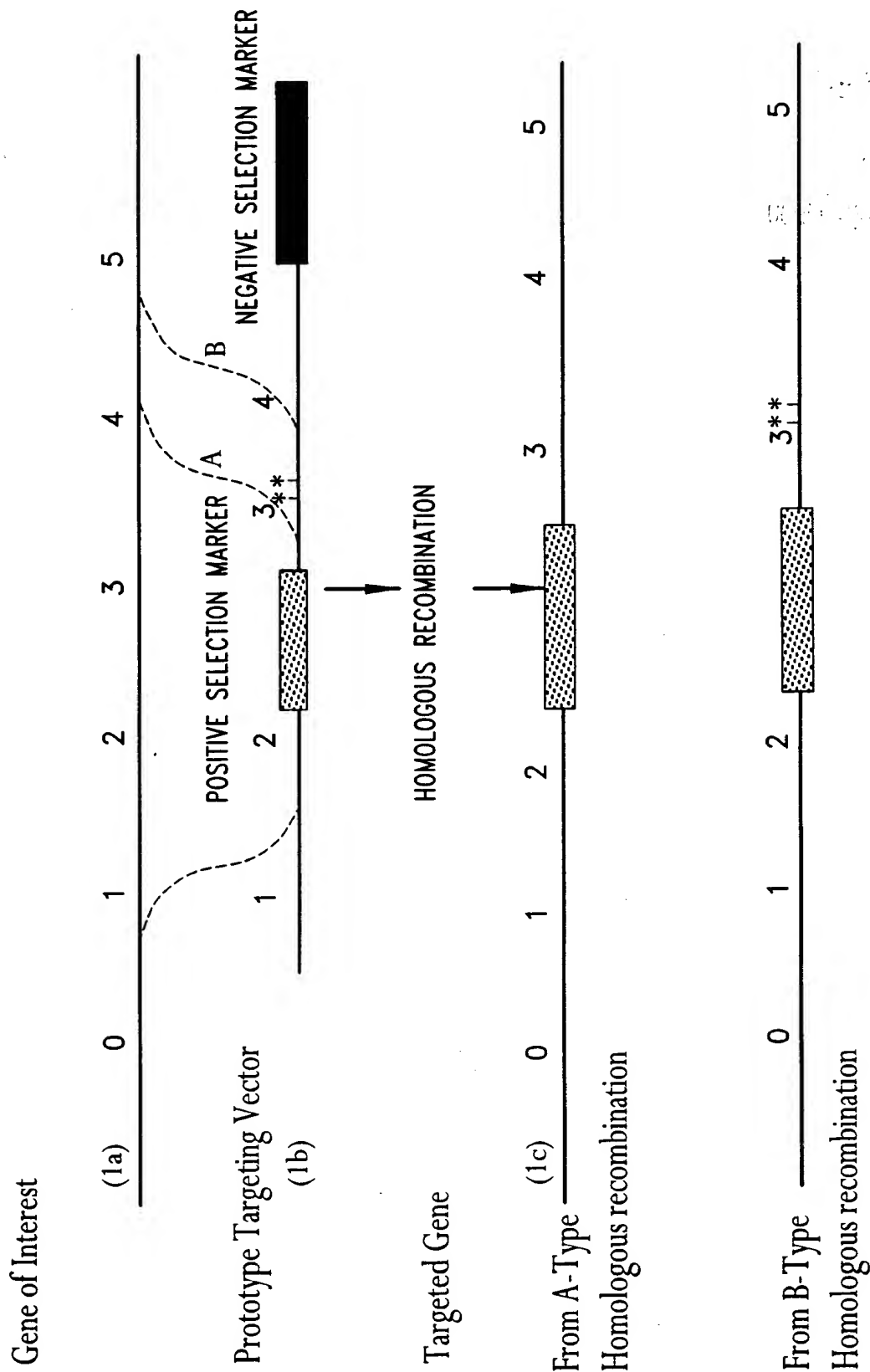


FIG. 1

# Mouse PS-1 Exon 8 Region Genomic Clone Maps

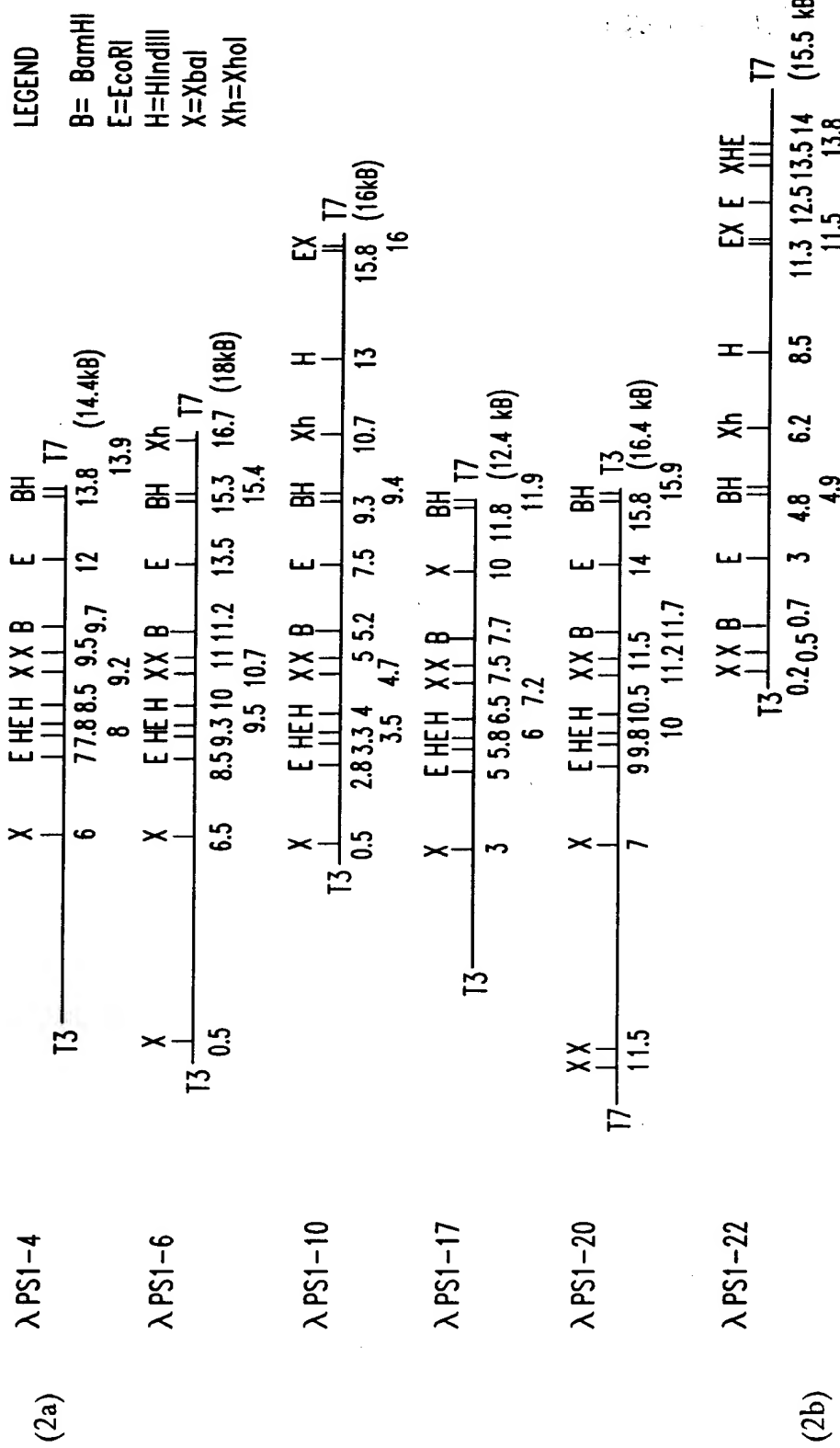


FIG. 2

# Restriction Mapping With FLASH™ Gene Mapping Kit

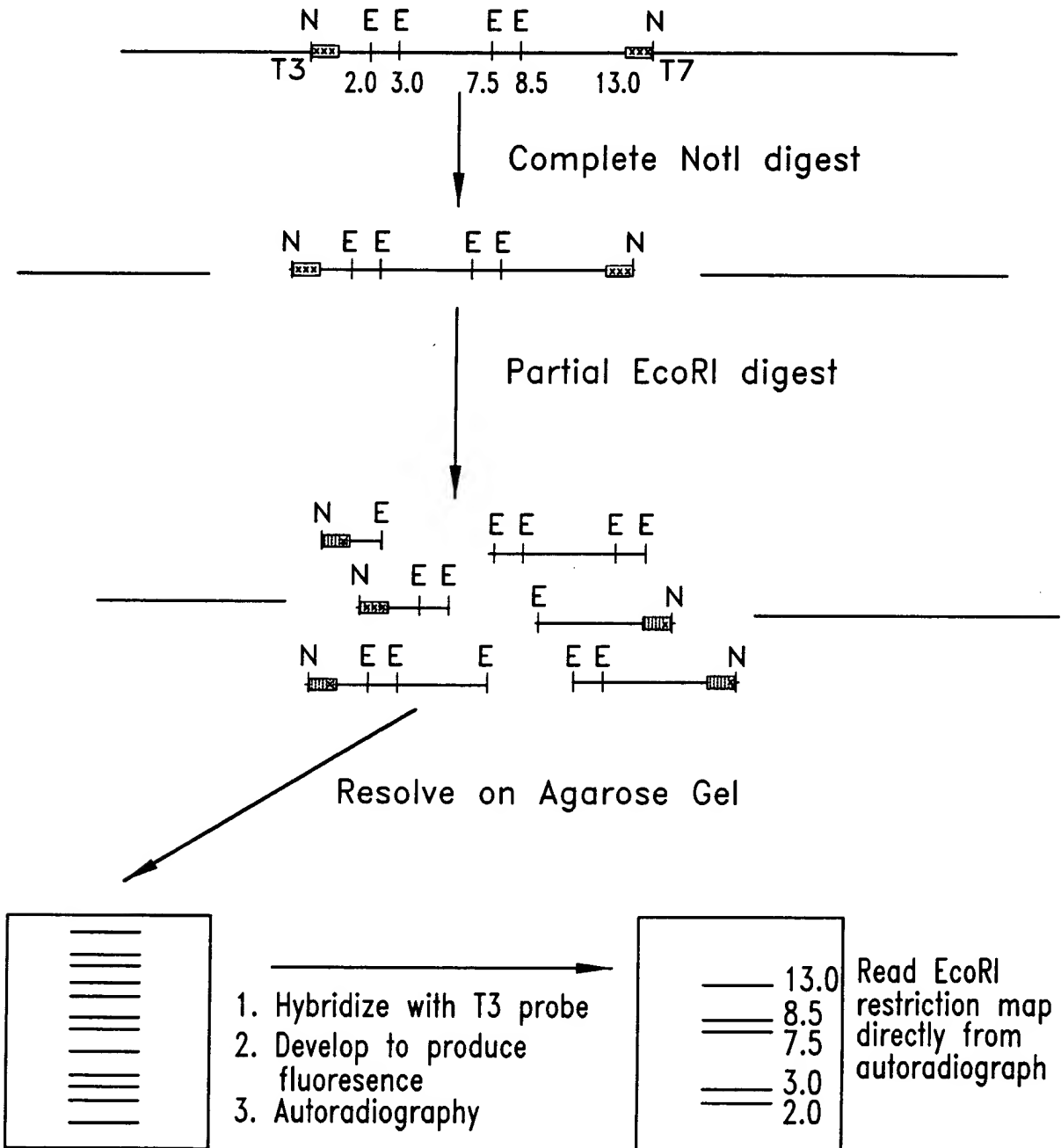


FIG. 3

### Strategy Used to Place Exons 7 and 8 on PSI Restriction Map

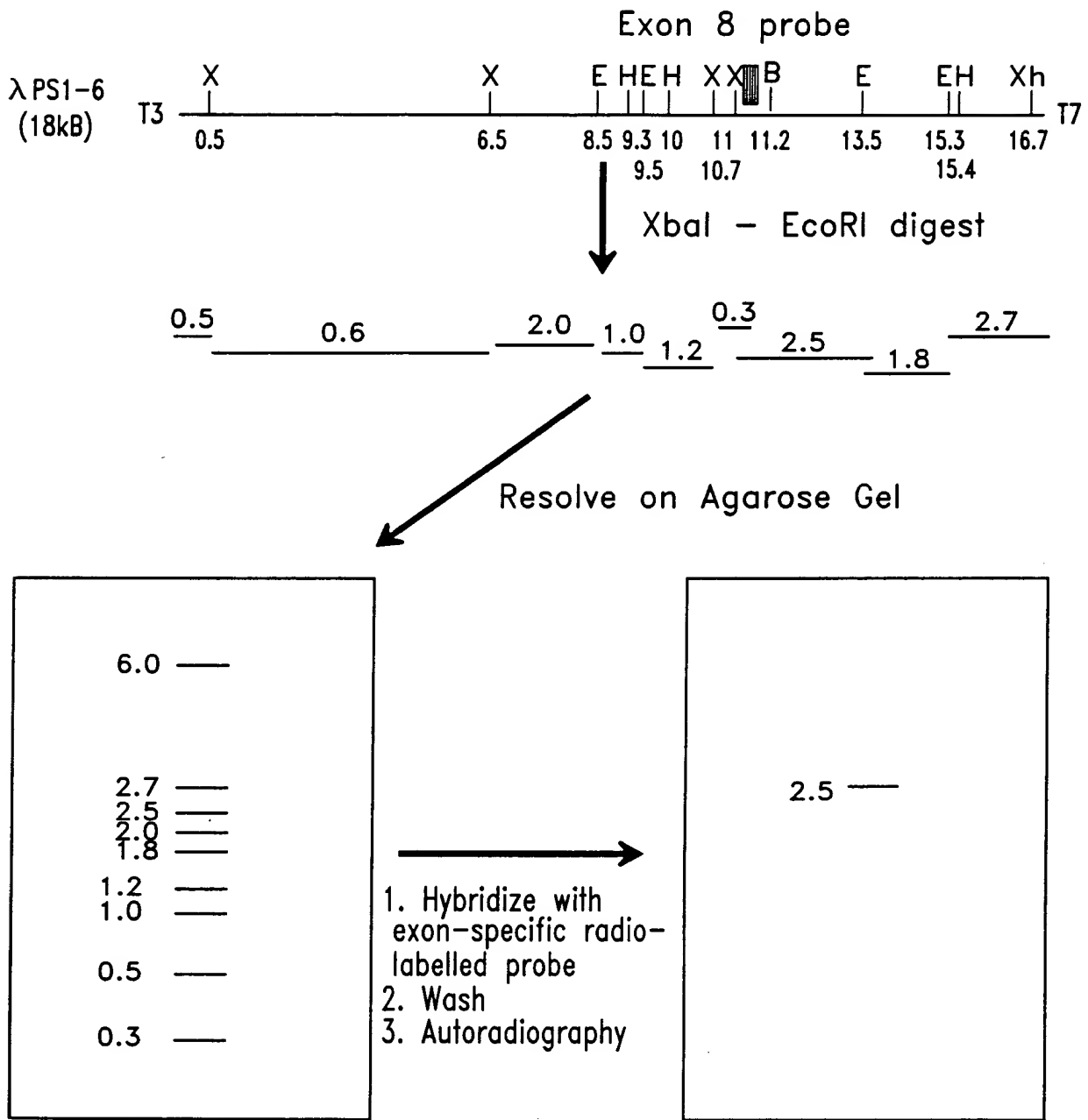
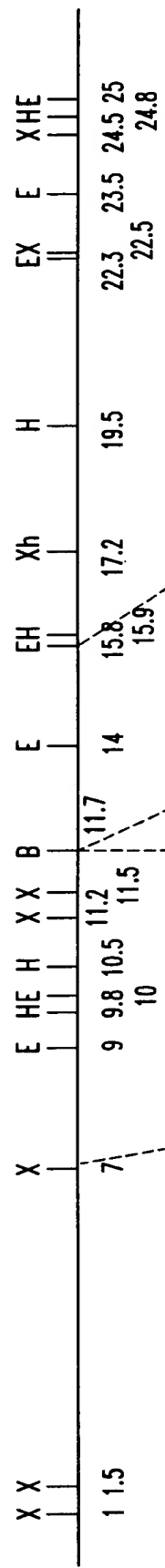


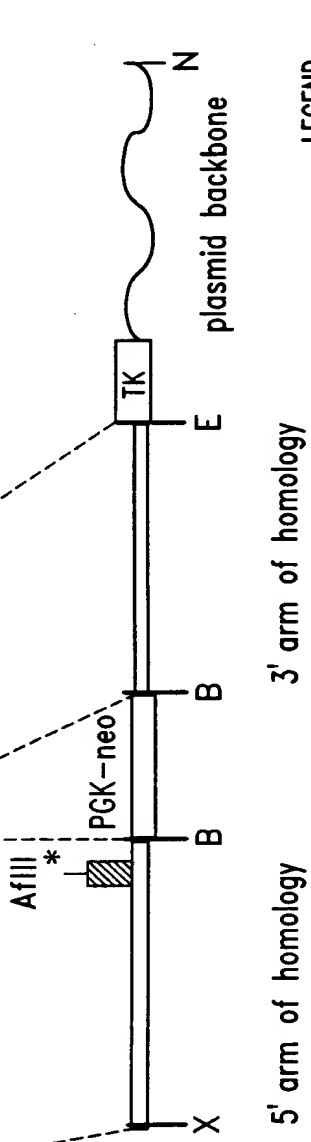
FIG. 4

PS1 Exon 8 Region Genomic Map & pPS1-8-TV Replacement Vector

(5a)



(5b)



LEGEND  
EcoRI - E  
HindIII - H  
XbaI - X  
XhoI - Xh  
BamHI - B

FIG. 5

## pPNTlox<sup>2</sup> Synthesis

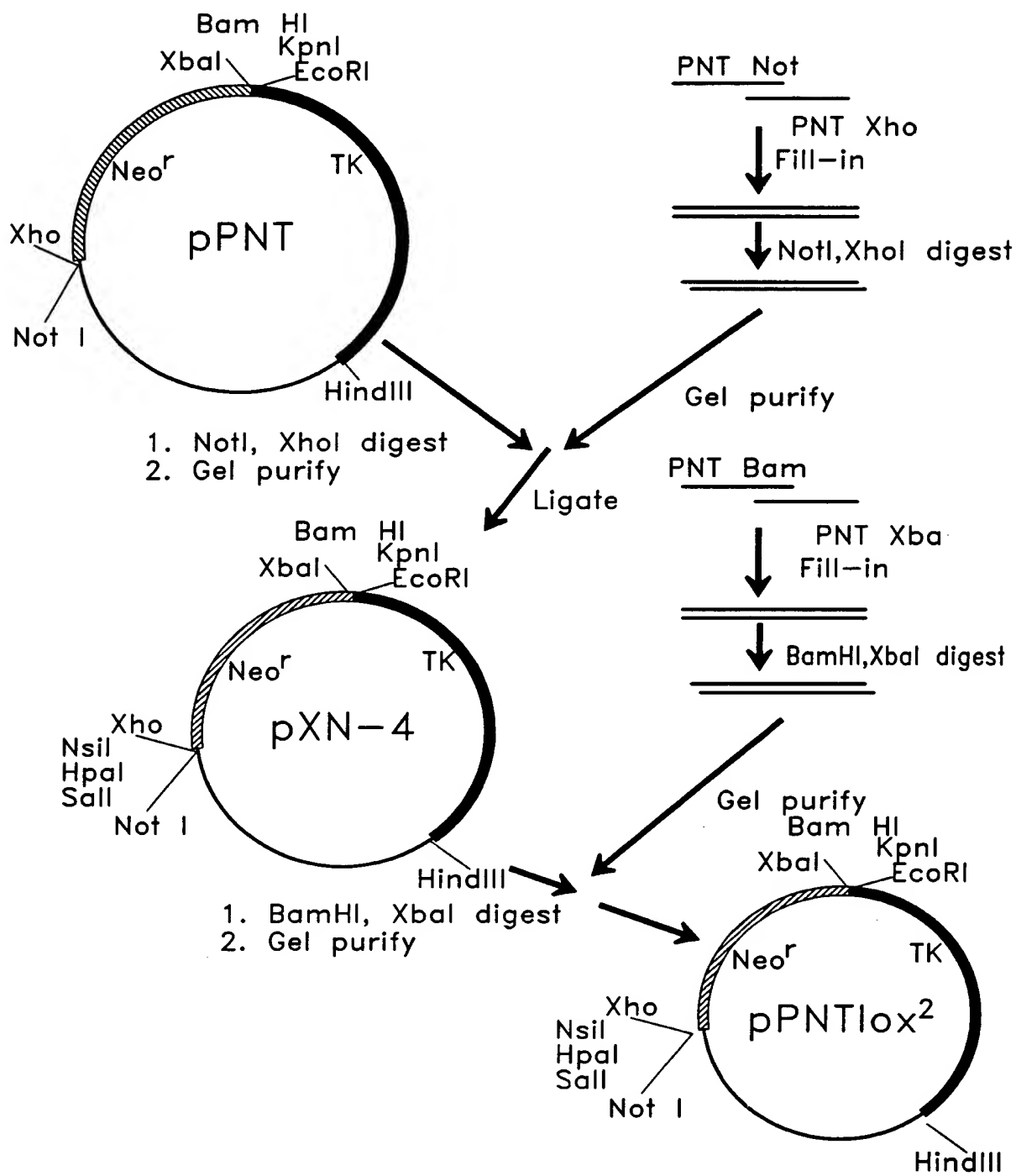


FIG. 6

## pPS1-XH16 Construction

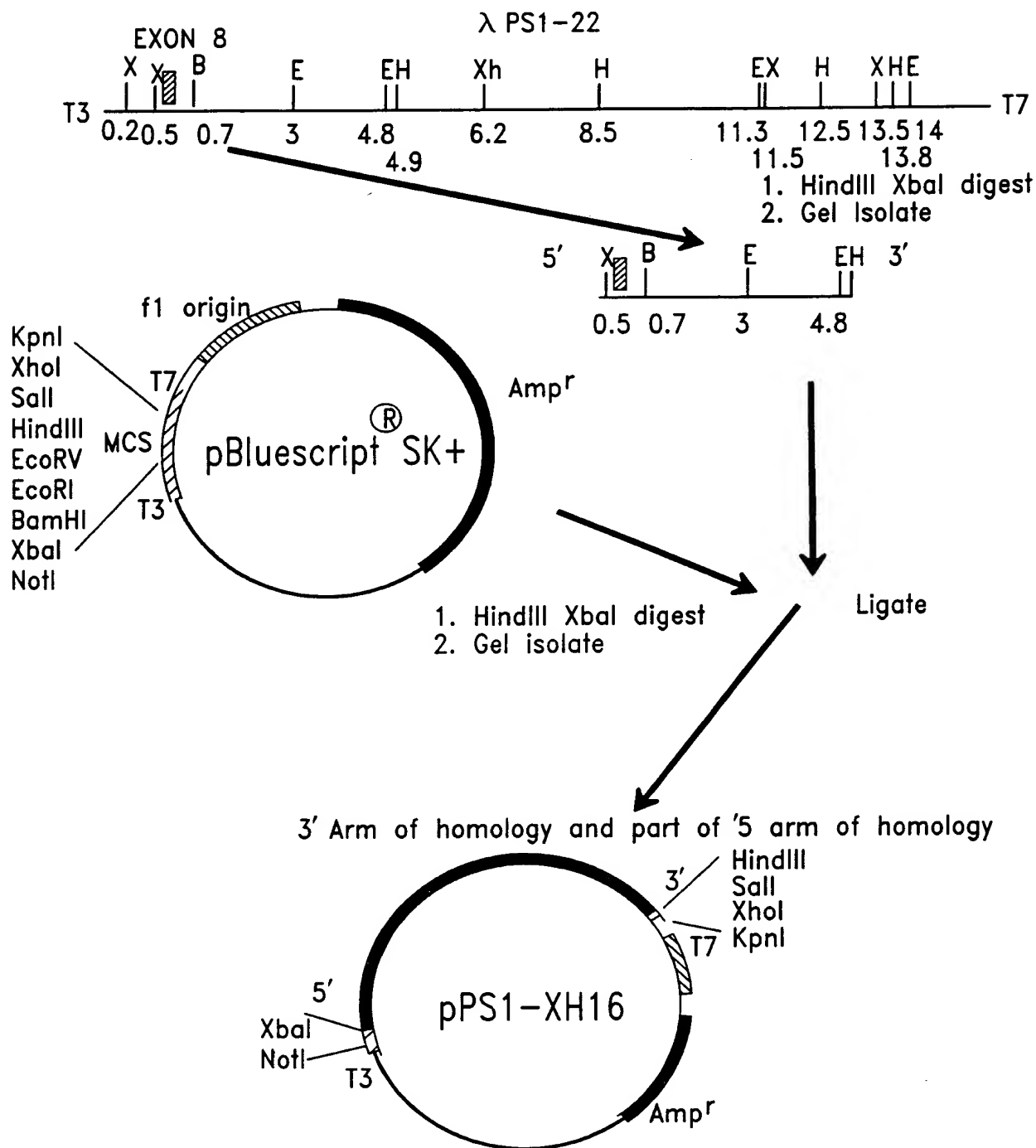


FIG. 7

## pPS1-XB1 Construction

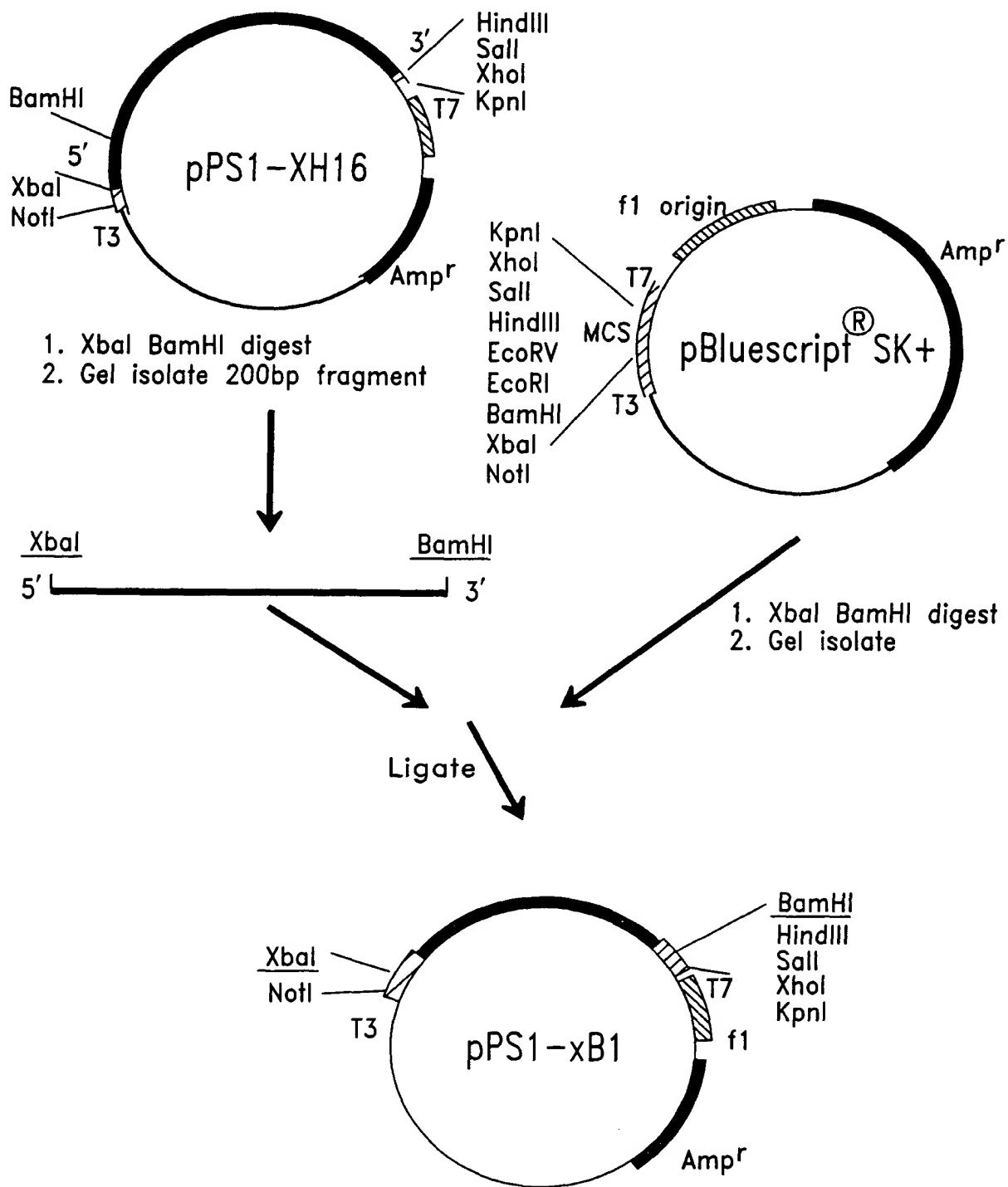


FIG. 8



## pPS1-X15, -X2 Construction

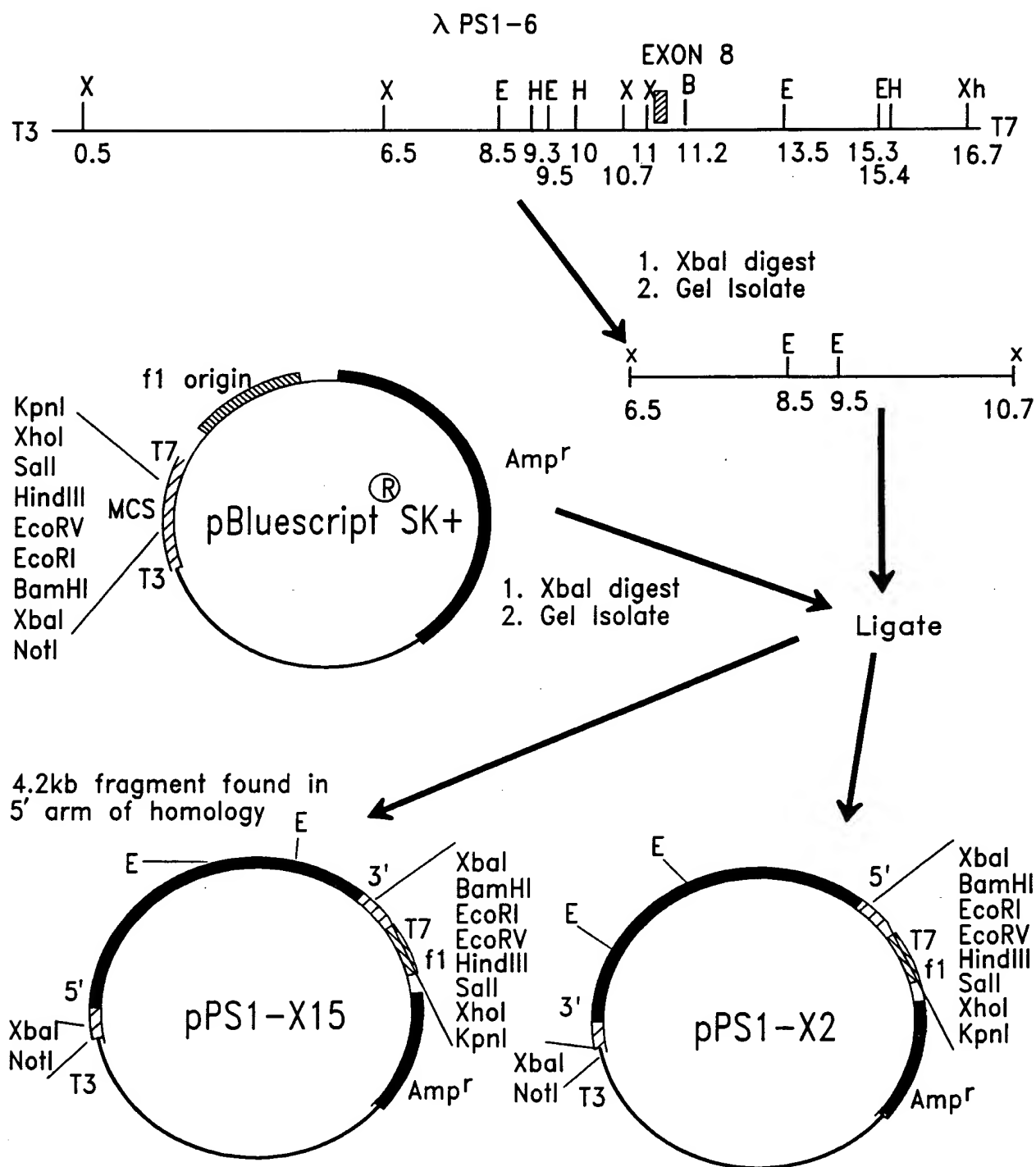


FIG. 9

# pPS1-X319 Construction

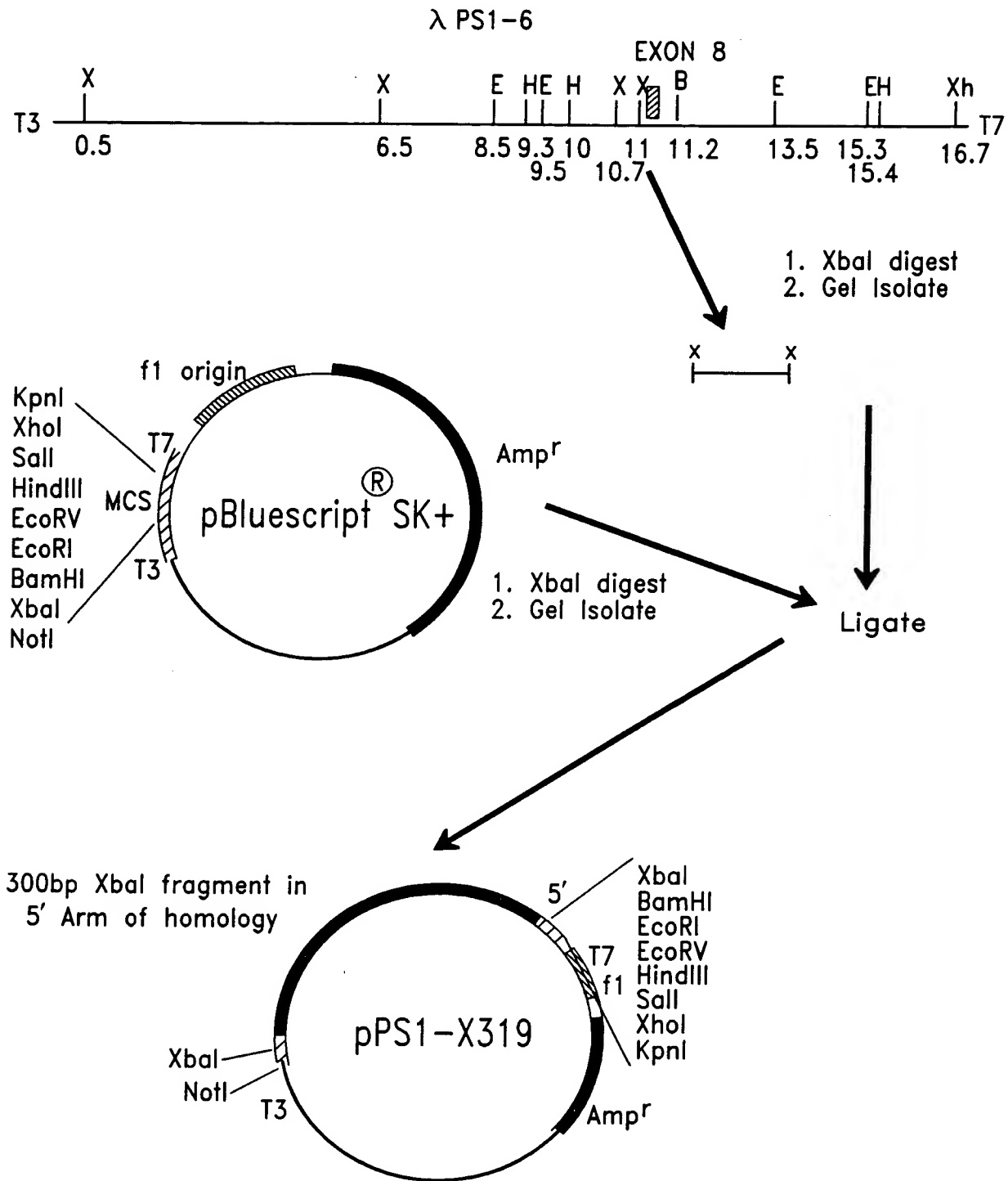


FIG. 10

## Example of Restriction Mapping the 5' Arm of Homology

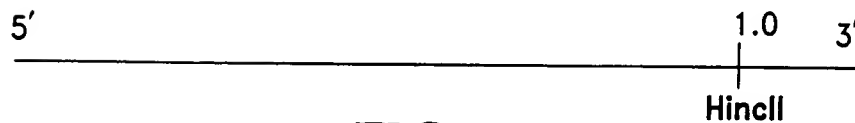
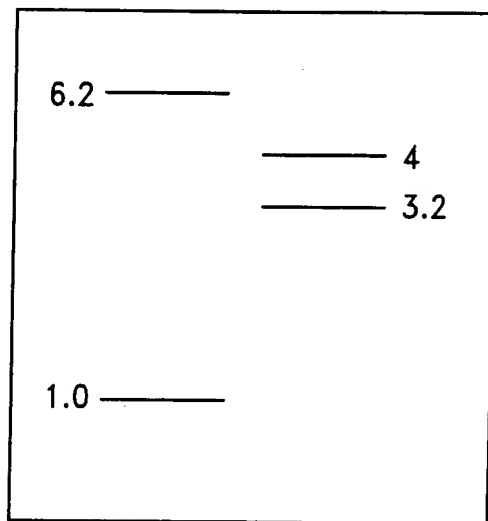
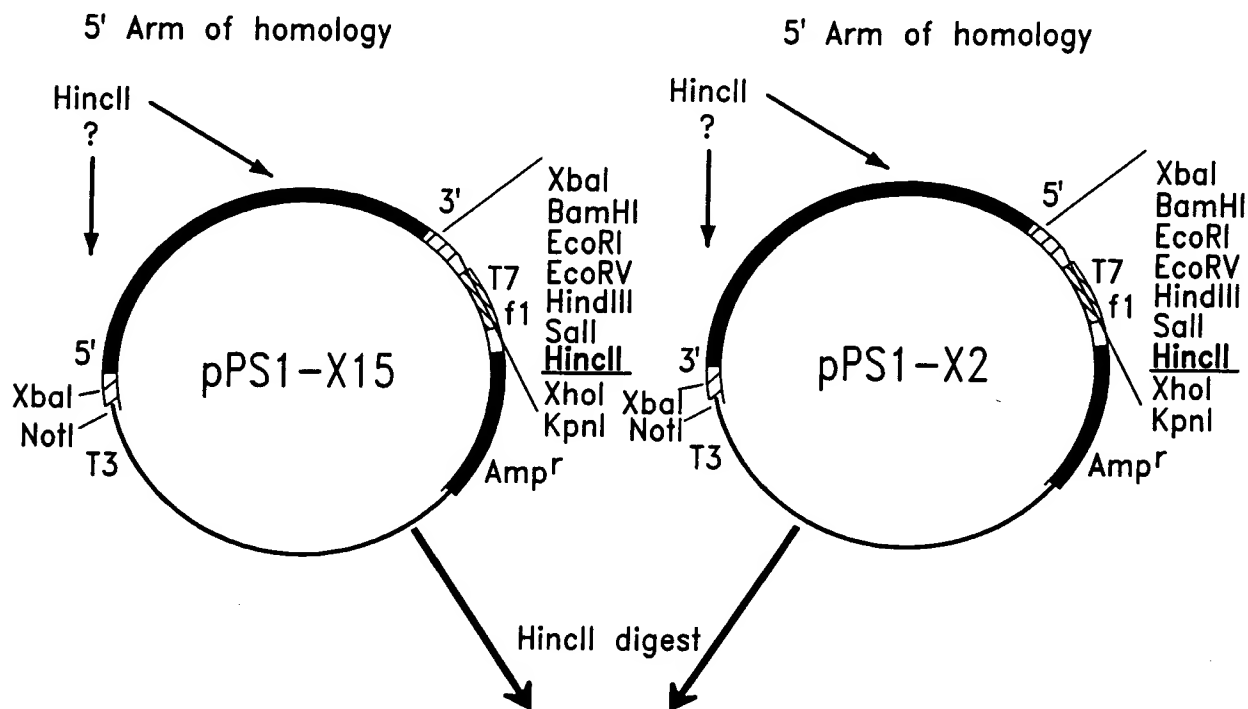


FIG. 11

Detailed Restriction Map Summary For PS1 3' and 5' Arms of Homology

5' Arm

5' Arm: Enzymes that don't cut

Sall Hpal Apal Spel KpnI  
SphI Stul NsiI PvuI

Enzymes that cut but are not mapped

PstI BglII Dral NcoI PvuII

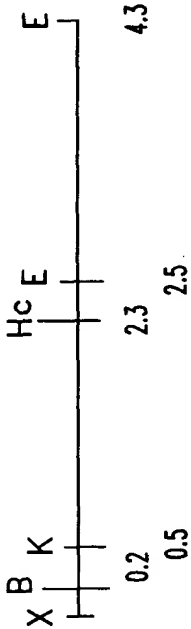
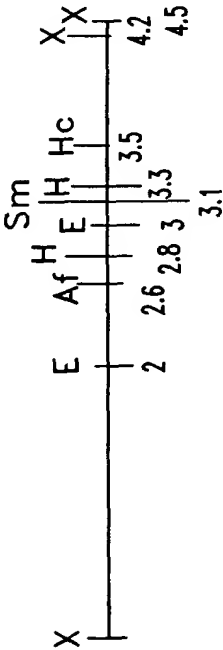
3' Arm

3' Arm: Enzymes that don't cut

Sall Spel SmaI ApaI  
PvuII PvuI AccI

Enzymes that cut but are not mapped

StuI BglII PstI NcoI DraI SphI



LEGEND  
E - EcoRI  
H - HindIII  
X - XbaI  
Hc - HincII  
K - KpnI  
Af - AflII  
B - BamHI  
Sm - SmaI

FIG. 12

# PS-1 Exon 8 Mutagenesis

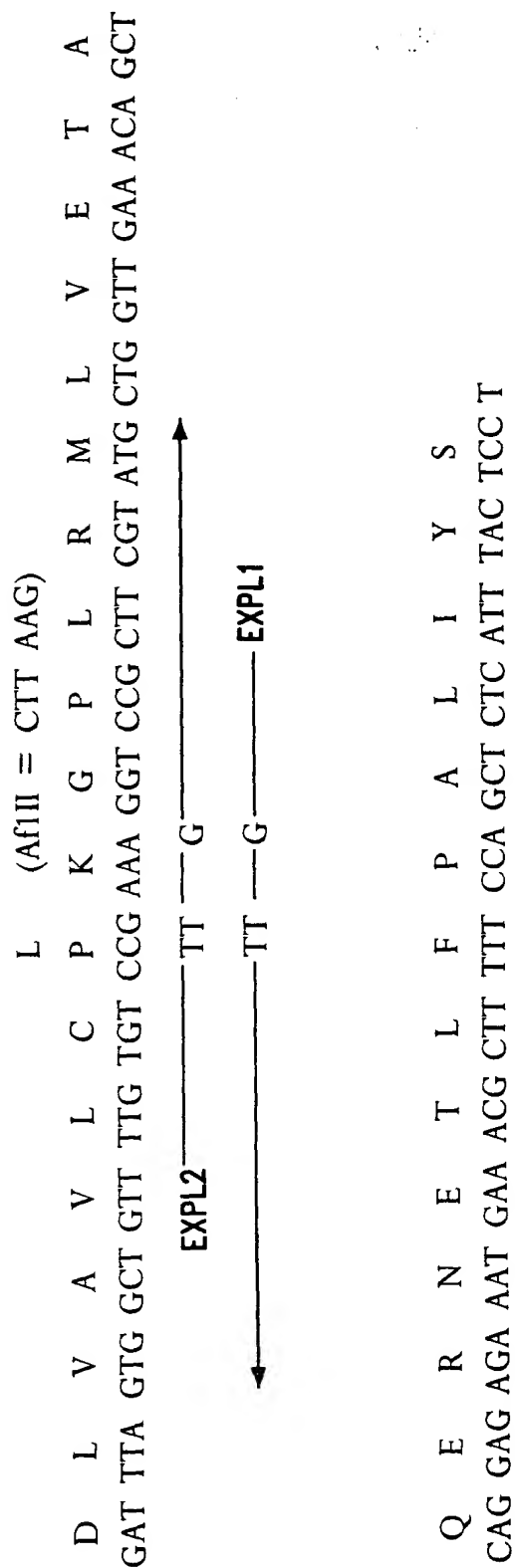


FIG. 13

## pPS1-XB85 Construction

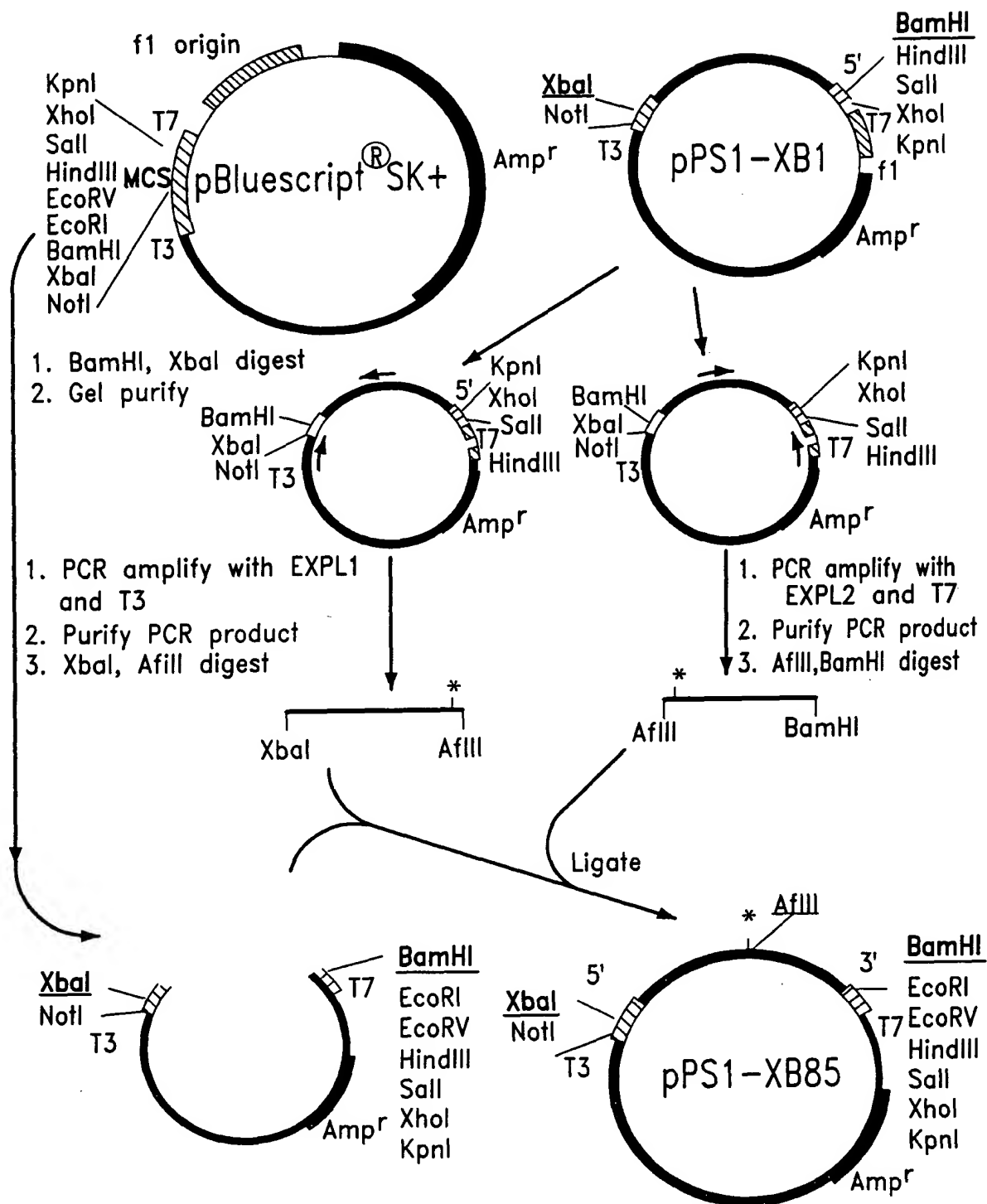


FIG. 14

## pPS1-206 Construction

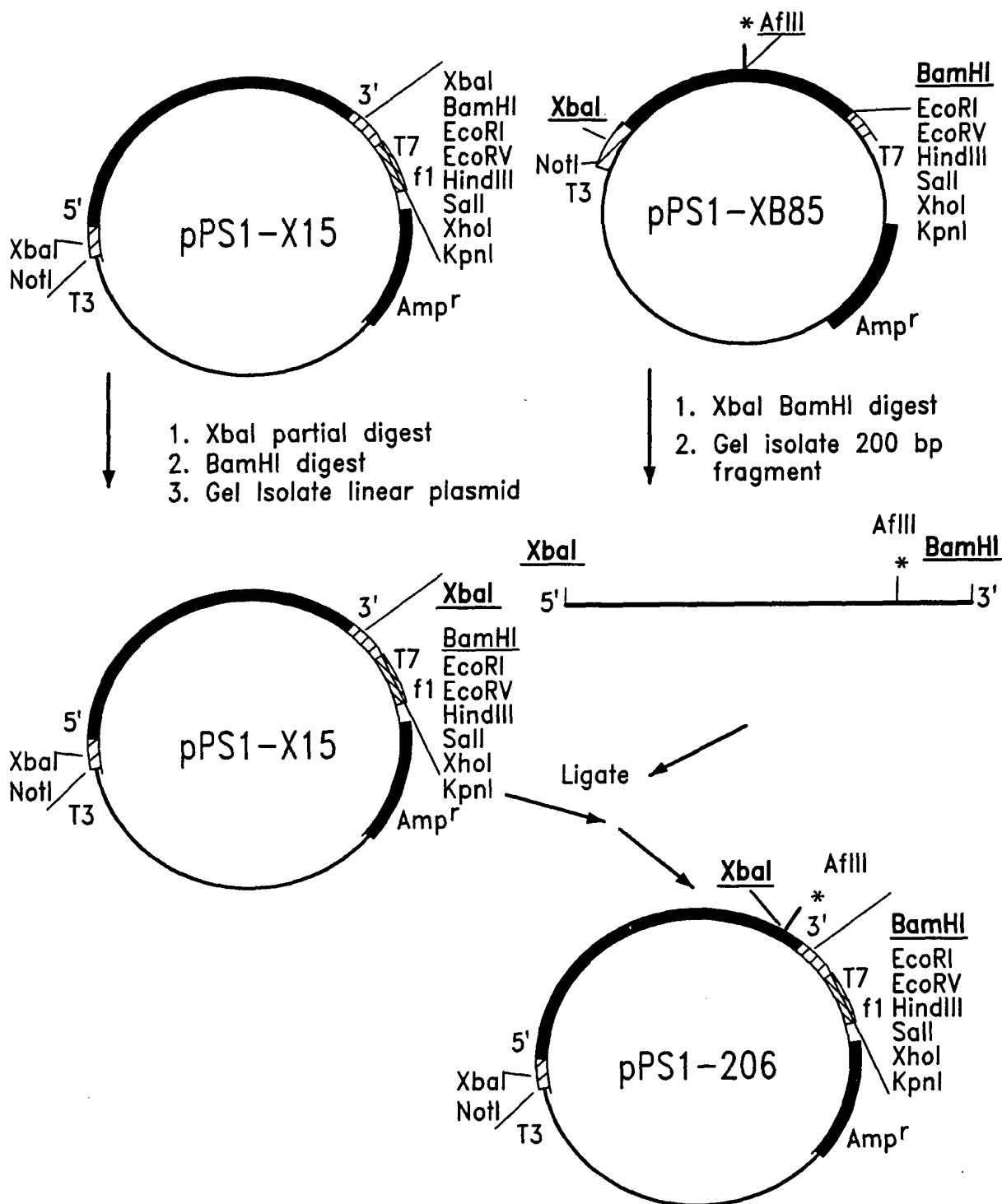


FIG. 15

## pPS1-360 Construction

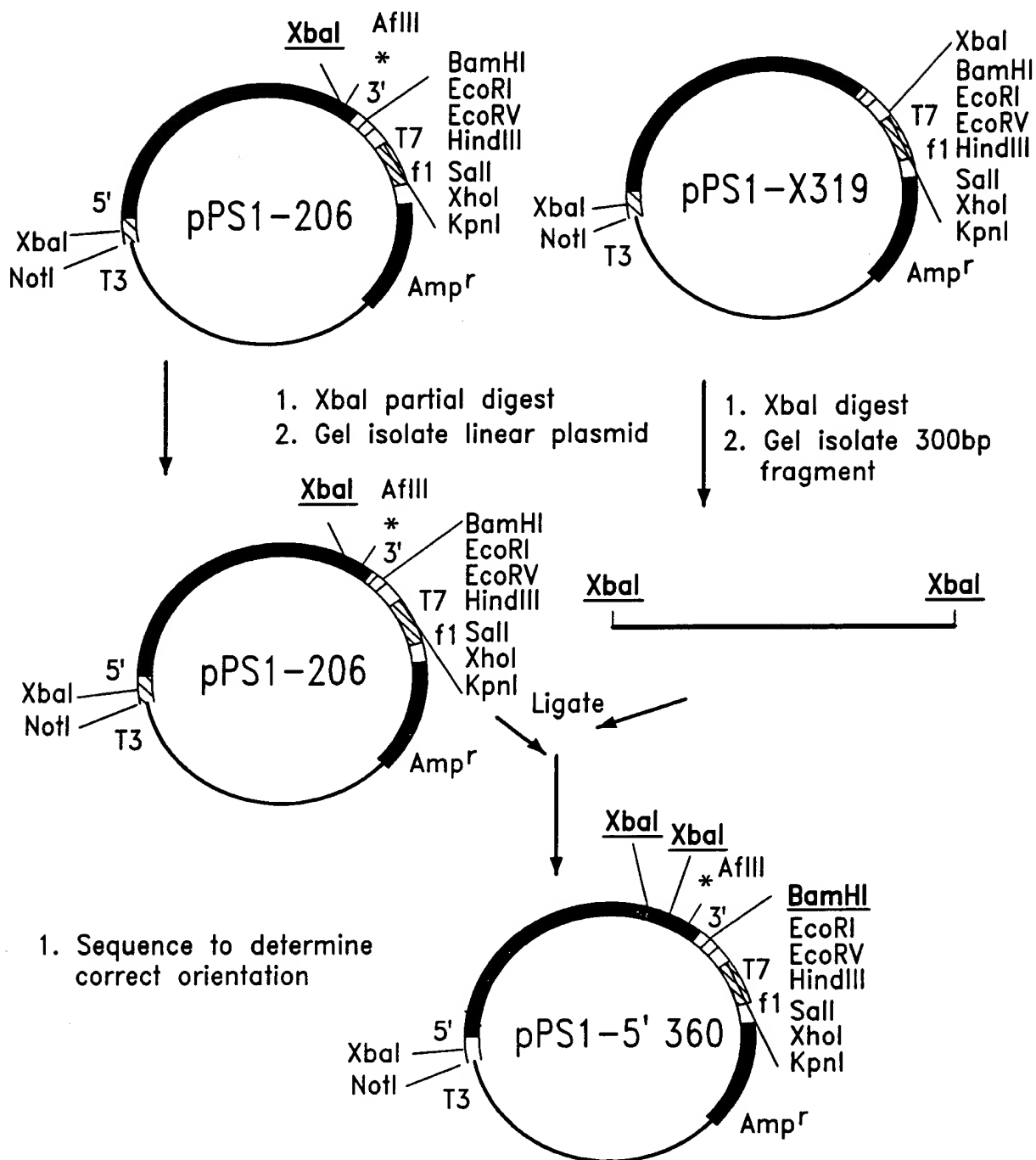


FIG. 16



## pPNT3'413 Construction

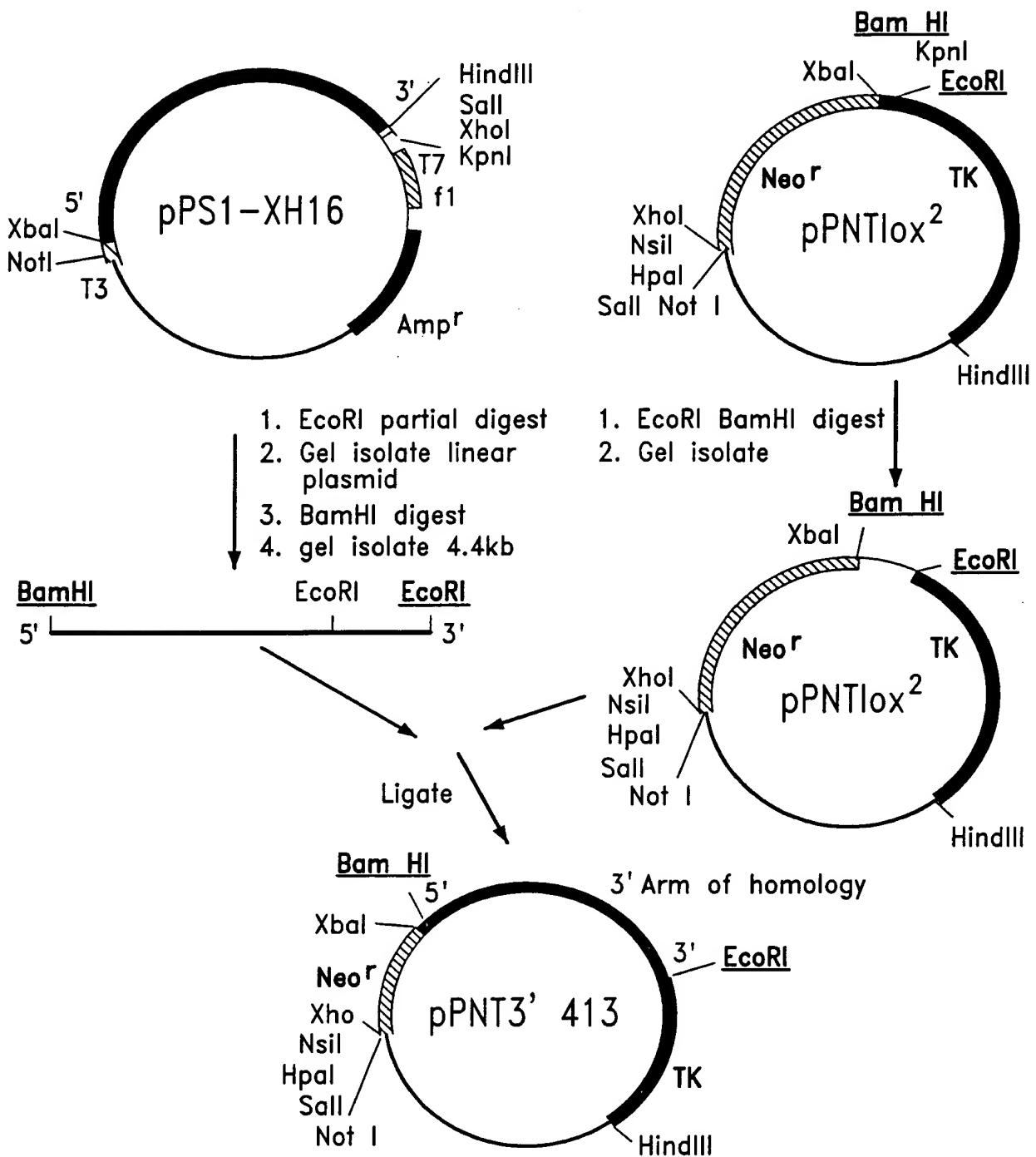


FIG. 17

## pPS1-8-TV Construction

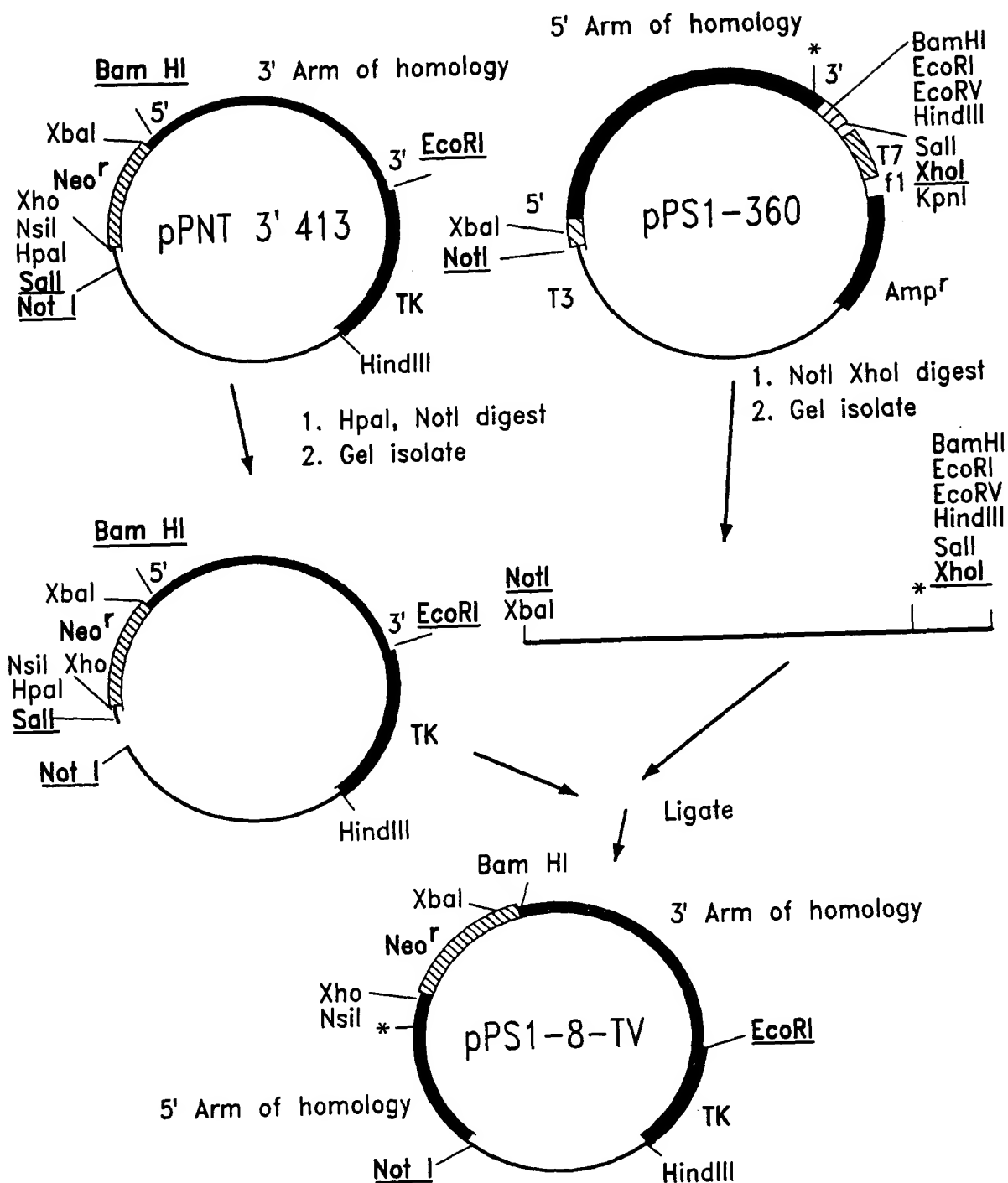


FIG. 18

# Strategy to detect homologous recombination within mouse PS1

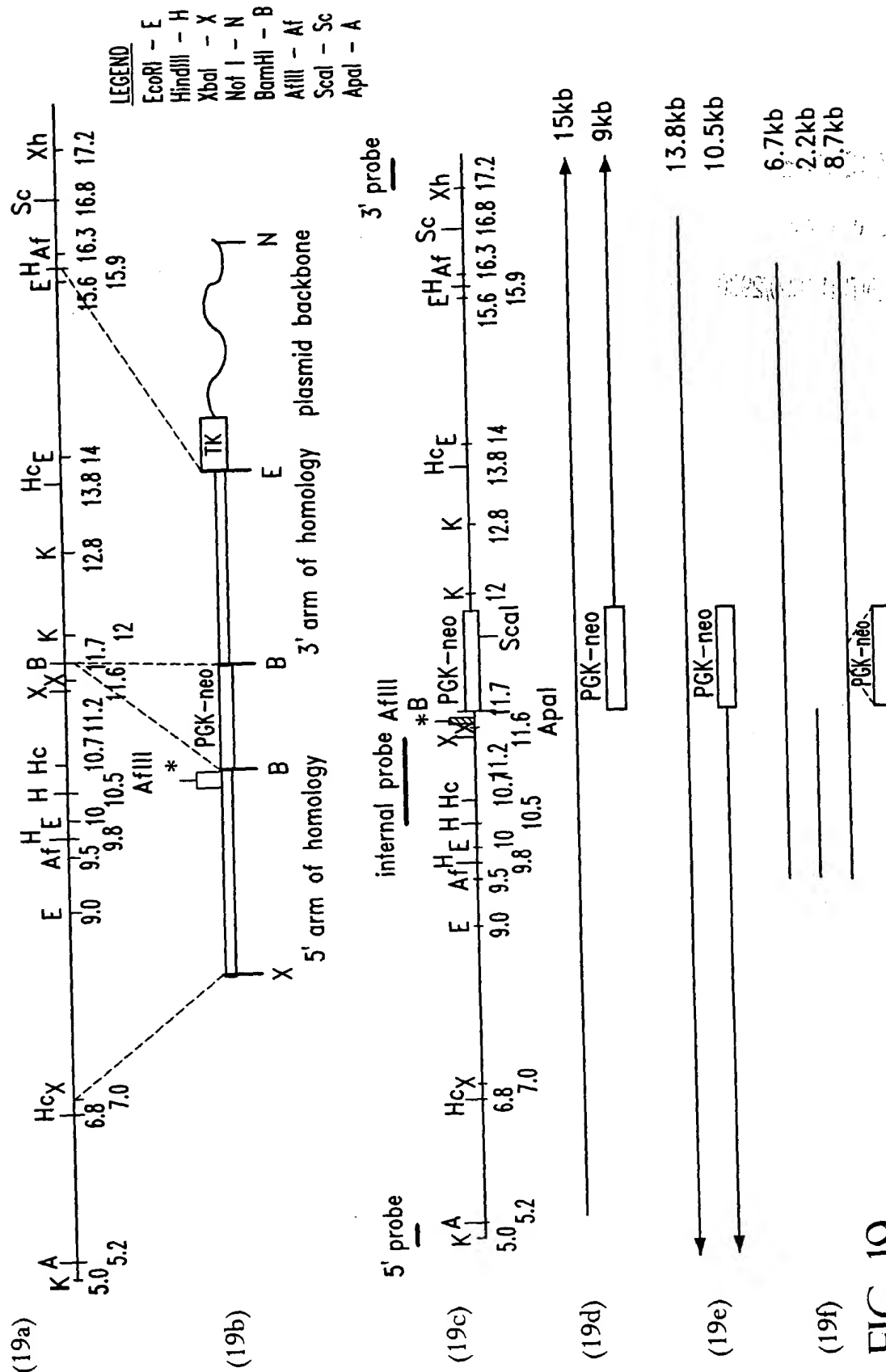


FIG. 19